

The Commonwealth of Massachusetts  
Executive Office of Health and Human Services  
Department of Public Health  
**William A. Hinton State Laboratory Institute**  
305 South Street, Jamaica Plain, MA 02130

DEVAL L. PATRICK  
GOVERNOR

TIMOTHY P. MURRAY  
LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD  
SECRETARY

JOHN AUERBACH  
COMMISSIONER

Jessica Lee, ADA  
Suffolk County District Attorney's Office

By e-mail

March 8, 2012

Re: Comm. v [REDACTED] State Lab no. [REDACTED]

ADA Lee,

Please find the discovery materials, for the case noted above, collated in the following manner:

- 1) c.v.s of the chemists
- 2) the Drug Lab Evidence Office Receipt to the Boston Police.
- 3) the inventory control cards
- 4) the Drug Powder Analysis Forms
- 4) the gas chromatography/mass spectrometry (gc/ms) data

I was the custodial chemist for this case, responsible for the chain of custody, the weighing of the substance and the preliminary tests. Kate Corbett was the confirmatory chemist operating the gc/ms.

If you need further clarification of these materials, call me directly at (617) 983-6627.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Lawler".  
Michael Lawler  
Senior Chemist

Cc: Kate Corbett

## Curriculum Vitae

### **Michael Lawler**

#### **Education:**

University of Virginia, Charlottesville, Va. Bachelor of Arts in English, 1975

Harvard University, Cambridge, Ma. Master of Arts in biology, 1995

#### **Experience:**

**1990-present** currently Chemist III, Mass. Dept. of Public Health, Drug Lab analyst determining the identity of unknown substances and providing expert testimony in the Courts. Conduct special testing for poisons within drug exhibits (e.g. strychnine in MDMA)

**2005-2008** lecturer in chemistry, Curry College, Milton, Ma.

**1988-1990** New England Newborn Screening (NENS) Biochemist conducting pilot studies and validation trials of new newborn screening tests. Investigator and co-author of papers noted below. Introduced screening test for Biotinidase Deficiency. Liaison with interstate collaborators in national studies.

**1983-1988** Supervised NENS urine screening lab for metabolic disorders. Conducted research in collaboration with Children's Hospital (Boston) detecting neuroblastoma, a cancer of early childhood. Conducted reference testing for rare metabolic disorders for an international audience.

**1982-1983** NENS hypothyroid assay technologist with Tuft's University

**1979-1981** Mass. Bay Community College, staff technologist preparing materials for the laboratory technician program, which included reagents, apparatus and maintaining stock cultures of human pathogens.

#### **Additional education and special training**

Drug Analysis, completed six week training course by senior staff within the Department of Public Health Drug Analysis Laboratory

National Laboratory Network Training Program course as Expert Witness

Qualified as an expert witness in the Massachusetts Courts and the U.S. District Court Current Drug Trends – Multijurisdictional Drug Task Force Academy August 2009

CDC course in public health response to bioterrorism

U.S. Army course in biologic warfare and terrorism

DEA Special Testing Lab Seminar June 2011

Sigma-Aldrich LC/MS – New Applications Fall 2011

#### **Journal Publications**

Screening, 1992, 1:34-37; Lawler,M., Frederick,S., Rodriguez-Anza, S., Wolf,B., Levy,H., *Newborn Screening for Biotinidase Deficiency, Pilot Study and Follow-up of Identified Cases*

Genetic Screening, 1990, 11-18, Mitchell,M., Lawler,M., Walraven,C., Hermos,R., *To Screen or Not to Screen for Congenital Hyperplasia: Is that the Question?*

The Journal of Pediatrics, 116: 78-83, Secor-McVoy,J., Lawler,M., Schmidt, M., Ebers,D., Hart,P., Pettit,D., Blitzer,M., Wolf,B., *Partial Biotinidase Deficiency: Clinical and Biochemical Features*

#### **Professional Affiliations**

Northeastern Association of Forensic Scientists (NEAFS) since 2005

#### **Awards**

Theobald Smith Education Grant for graduate studies

# Curriculum Vitae

Kate A. Corbett

## Education

Bachelor of Science Degree, CHEMISTRY May 2003

MERRIMACK COLLEGE

Coursework included: Organic Chemistry, Inorganic Chemistry, Quantitative Analysis, Instrumental Analysis, Physical Chemistry, Physics, Calculus

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## Employment

Chemist II State Laboratory Institute (March 2008-Present)

Massachusetts Department of Public Health

Drug Analysis Laboratory

- Responsible for the identification of substance and trafficking substances to determine violation of the Massachusetts drug laws
- Responsible for the identification of pharmaceuticals to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation, microscopes and balances for forensic drug analysis

Chemist I State Laboratory Institute (2005-March 2008)

Massachusetts Department of Public Health

Drug Analysis Laboratory

- Responsible for the identification of substance to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation for the purpose of performing forensic drug analysis
- Successfully completed an eight week training course in the analysis of drugs conducted by senior staff of the Department of Public Health, Drug Analysis Laboratory
- Appointed an assistant analyst for the Department of Public Health, Drug Analysis Laboratory in 2005

Research Associate (September 2003 - August 2005)

SENSOR TECHNOLOGIES, INC - Shrewsbury, MA

- Prepared chemistries used in making sensor beads
- Generated and examined sensors employing fluorescence spectroscopy
- Performed protein, dye, and sugar assays using UV/VIS spectrophotometry
- Carried out filtrations on ricin using fluorescence correlation spectroscopy
- Statistical analysis of experimental data

Intern (March 2003 – August 2003)

MASSACHUSETTS STATE POLICE CRIME LABORATORY - Sudbury, MA

- Assisted in the gathering of case files to fulfill the National Institute of Justice's No Suspect Backlog Reduction Grant
- Observed in the Evidence, Criminalistics, DNA, Drug, Trace, Toxicology, and Bomb/Arson Units



**DRUG RECEIPT**

District/Unit Del Norte Public Schools

Name & Rank of Arresting Officer \_\_\_\_\_ ID# \_\_\_\_\_

DEFENDANT'S NAME	ADDRESS	CITY	STATE
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DESCRIPTION OF ITEMS SUBMITTED	GROSS QUANTITY	GROSS WEIGHT	LAB USE ONLY ANALYSIS NUMBER
In tightly wrapped bags class B powder	11	16.33g	
in tightly wrapped bag class B rock	1	2.33g	

To be completed by ECU personnel only

Name and Rank of Submitting Officer John M. Clark ID# 1141

Received by                          Date 7-20-71

ECU Control #

Corbett\_email

Corbett\_email\_PRR\_008942

No. [REDACTED]

Date Analyzed: 1/26/12

City: Boston D.C.U. Police Dept.

Officer: P.O. RENEE JACKSON

Def: [REDACTED]

Amount:

Subst: SUB

No. Cont: 11 Cont: pb

Date Rec'd: 07/20/2011

No. Analyzed: 2

Gross Wt.: 16.33 ✓

Net Weight: 9.33 g

# Tests:

16 MR

Prelim: COCAINE

Findings: COCAINE • 464AC

No. [REDACTED]

Date Analyzed: 1/12/12

City: Boston D.C.U. Police Dept.

Officer: P.O. RENEE JACKSON

Def: [REDACTED]

Amount:

Subst: SUB

No. Cont: 1 Cont: pb

Date Rec'd: 07/20/2011

No. Analyzed:

Gross Wt.: 2.32 ✓

Net Weight: 0.31 g

# Tests:

9 MR

Prelim: COCAINE E

Findings: COCAINE • 216AC

1-26-12

DRUG POWDER ANALYSIS FORM

SAMPLE #

AGENCY

Boston D.A.

ANALYST

MJC

No. of samples tested:

2

Evidence Wt

16.33g

PHYSICAL DESCRIPTION:

11 pieces with substance

Gross Wt ( ): 11.3789

Gross Wt ( ): \_\_\_\_\_

Pkg. Wt: \_\_\_\_\_

Net Wt: 9.3358g

Test

OTANS 2334 1-7-12

$$\#1 \text{ larger by net } 1.0733g \times 8 = 8.5864g \quad 20g = 20.0001g$$

$$\#2 \text{ smaller by net } 0.2498g \times 3 = 0.7494g \quad 10g = 10.0002g$$

$$5g = 4.9999g$$

$$1g = 1.0000g$$

PRELIMINARY TESTSSpot Tests

	#1	#2
Cobalt	(+)	(+)
Thiocyanate	(-)	(+)
Marquis	(-)	(-)
Froehde's	pink brown	(-)
Mecke's	(-)	(+)

Microcrystalline Tests

	#1	#2
Gold Chloride	(+)	(+)
TLTA	(+)	(+)

OTHER TESTS

_____
_____
_____

PRELIMINARY TEST RESULTSRESULTS CocaineDATE 1-7-12GC/MS CONFIRMATORY TESTRESULTS CocaineMS OPERATOR KACDATE 1-26-12

1-26-12

DRUG POWDER ANALYSIS FORM

SAMPLE #

AGENCY

Boston DOR

ANALYST

MJC

No. of samples tested:

2

Evidence Wt

16.33g

PHYSICAL DESCRIPTION:

11 p.b. with sub. channel

Gross Wt ( ): 11.3789

Gross Wt ( ): \_\_\_\_\_

Pkg. Wt:

Net Wt: 9.3358g

1.0733x3

0.0000

= 3.22000

0.0000

0.0000

0.0000

0.0000

0.0000

0.0000

0.0000

0.0000

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0.0000

0.0000

0.0000

(opened, unknotted)

OHAUS 2334 1-7-12

20g = 20,0001g

10g = 10,0002g

5g = 4,9999g

1g = 1,0000g

9.3358g

	#1	#2
Thiocyanate (A)	++	++
Marquis	(-)	(-)
Froehde's	pink brown	(-)
Mecke's	(-)	(+)

Microcrystalline Tests

Gold Chloride	TLTA	Others
(+)	(+)	(+)
(+)	(+)	(+)

OTHER TESTSPRELIMINARY TEST RESULTS

RESULTS COCAINE

DATE 1-7-12

GC/MS CONFIRMATORY TEST

RESULTS COCAINE

MS OPERATOR VAA

DATE 1-26-12

1-12-12

DRUG POWDER ANALYSIS FORM

SAMPLE #

AGENCY

ANALYST

No. of samples tested:

Evidence Wt.

PHYSICAL DESCRIPTION:

(pb w/ sub)

Gross Wt ( ): 0.4128g

Gross Wt ( ):                   

Pkg. Wt:                   

Net Wt: 0.3127

OHTAUS 2334 1-7-12

20g = 20.0001g

10g = 10.0002g

5g = 4.9999g

1g = 1.0000g

PRELIMINARY TESTS

Spot Tests

Cobalt Thiocyanate (+) -

Marquis b +

Froehde's (+)

Macke's (+)

Microcrystalline Tests

Gold Chloride (+) +

TLTA (+) H+

OTHER TESTS

PRELIMINARY TEST RESULTS

RESULTS COCAINE

DATE 1-7-12

GC/MS CONFIRMATORY TEST

RESULTS COCAINE

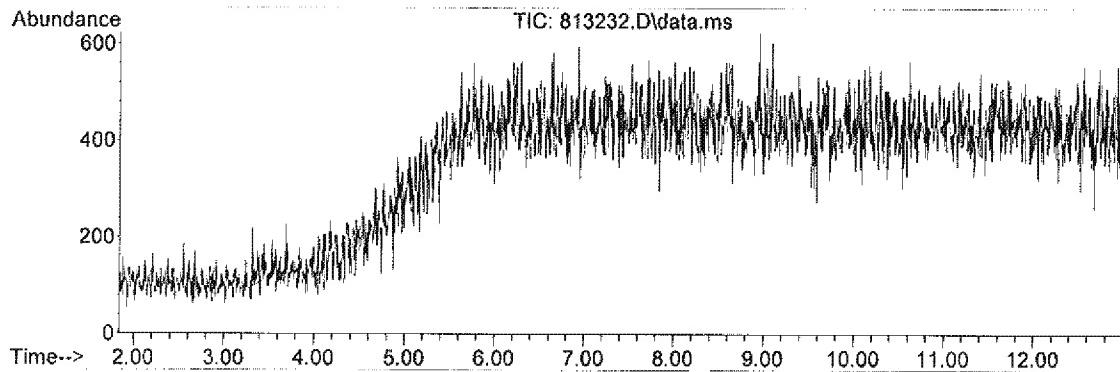
MS OPERATOR KAC

DATE 1-12-12

✓KAC  
3/7/12

## Information from Data File:

File Name : F:\SYSTEM7\01\_11\_12\813232.D  
Operator : KAC  
Date Acquired : 11 Jan 2012 18:12  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

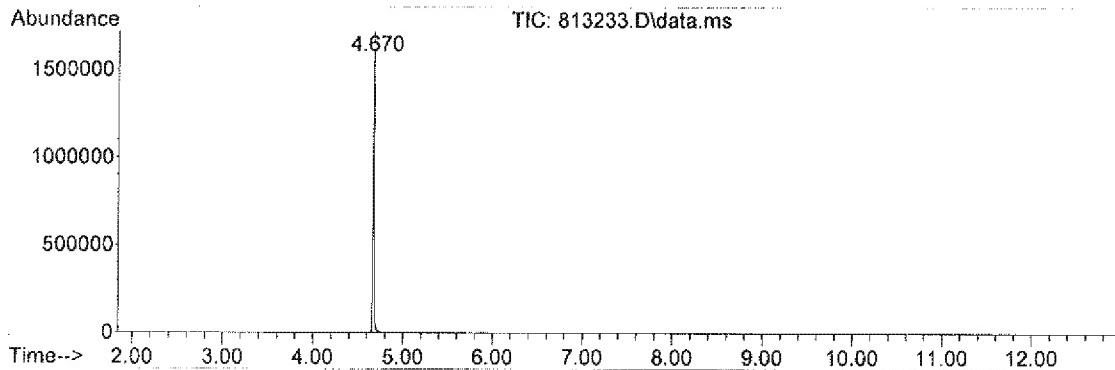


Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

## Information from Data File:

File Name : F:\SYSTEM7\01\_11\_12\813233.D  
Operator : KAC  
Date Acquired : 11 Jan 2012 18:28  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 33  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



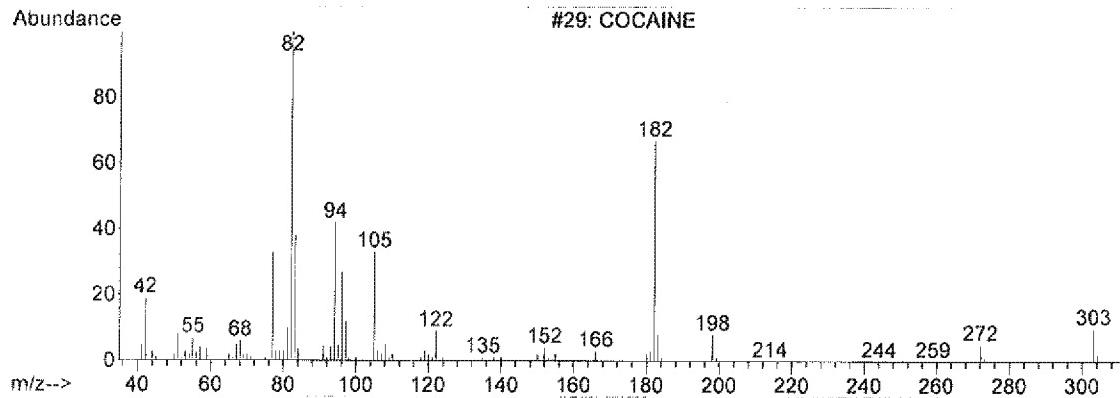
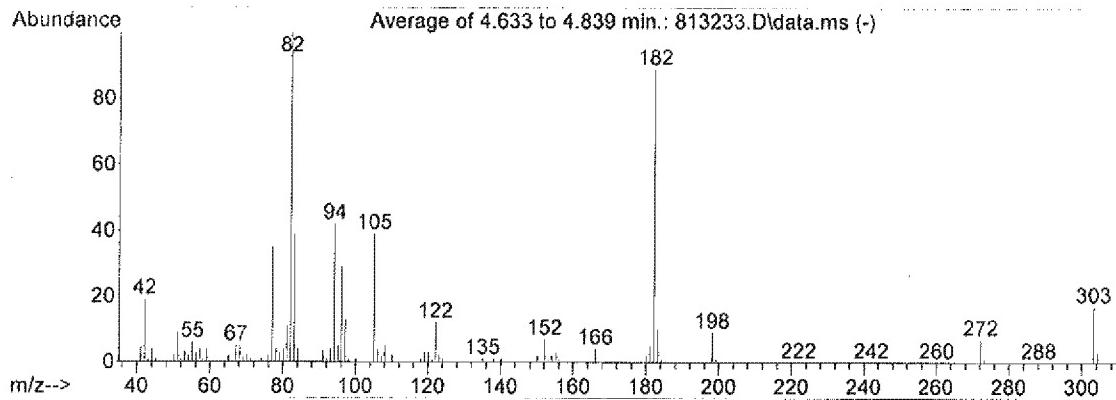
Ret. Time	Area	Area %	Ratio %
4.670	1516817	100.00	100.00

## Information from Data File:

File Name : F:\SYSTEM7\01\_11\_12\813233.D  
Operator : KAC  
Date Acquired : 11 Jan 2012 18:28  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 33  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

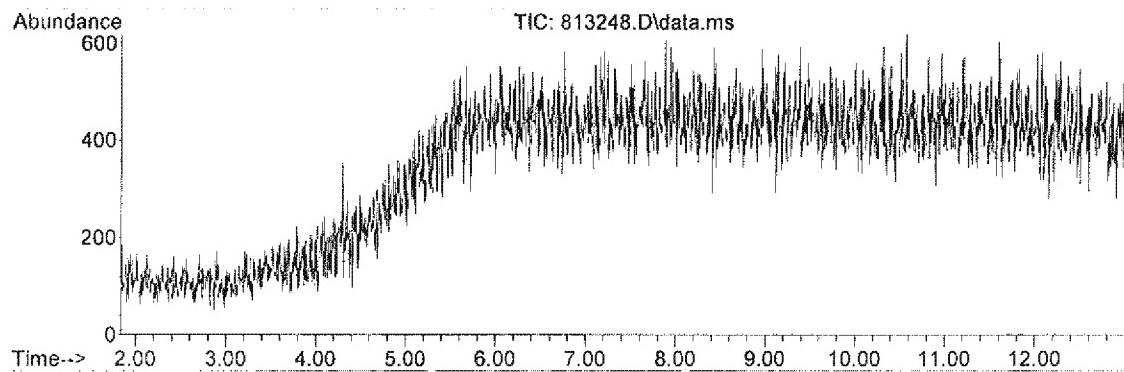
Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 70  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	4.67	C:\Database\SLI.L COCAINE	000050-36-2	99



## Information from Data File:

File Name : F:\SYSTEM7\01\_11\_12\813248.D  
Operator : KAC  
Date Acquired : 11 Jan 2012 22:21  
Sample Name : BLANK  
Submitted by : MGL  
Vial Number : 2  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



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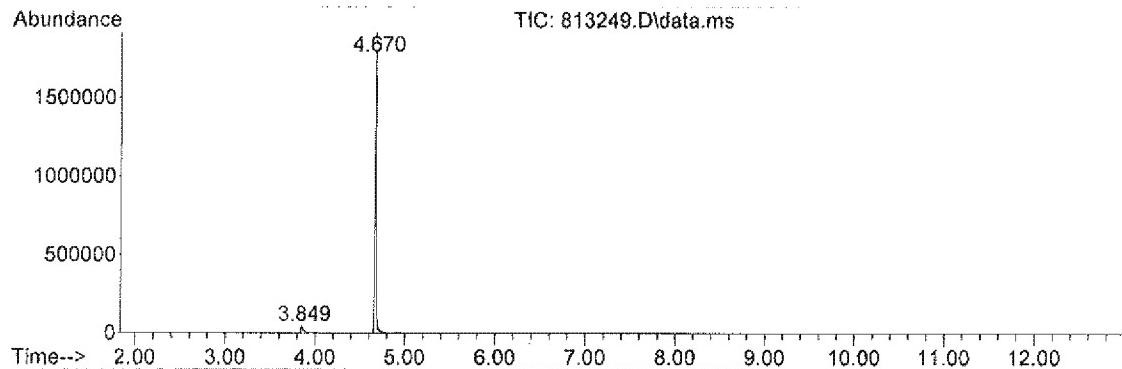
Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

## Information from Data File:

File Name : F:\SYSTEM7\01\_11\_12\813249.D  
Operator : KAC  
Date Acquired : 11 Jan 2012 22:37  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 49  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
3.849	100400	5.22	5.51
4.670	1823200	94.78	100.00

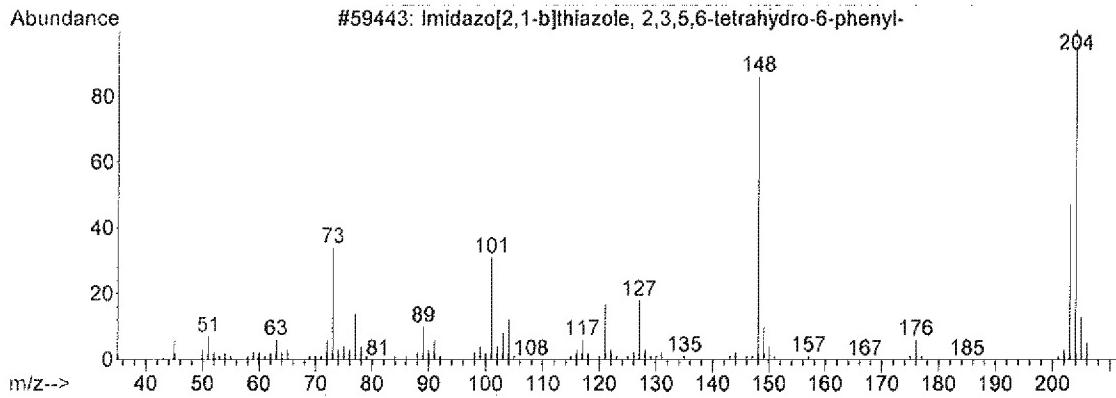
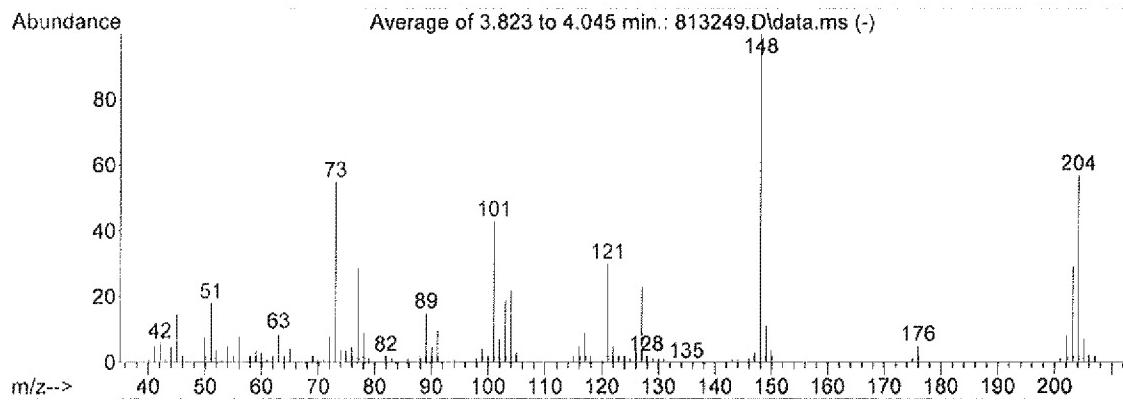
## Area Percent / Library Search Report

## Information from Data File:

File Name : F:\SYSTEM7\01\_11\_12\813249.D  
Operator : KAC  
Date Acquired : 11 Jan 2012 22:37  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 49  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 70  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	3.85	C:\Database\NIST05a.L		
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	97
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	014769-73-4	96
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	95

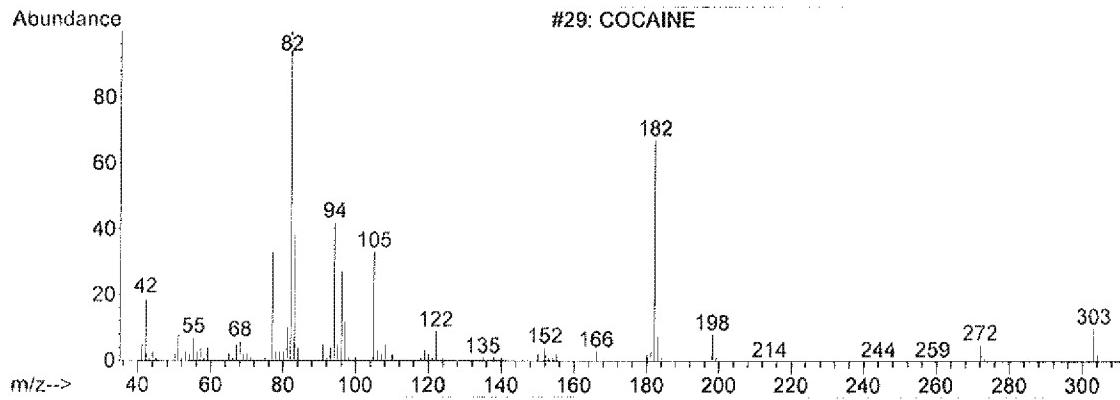
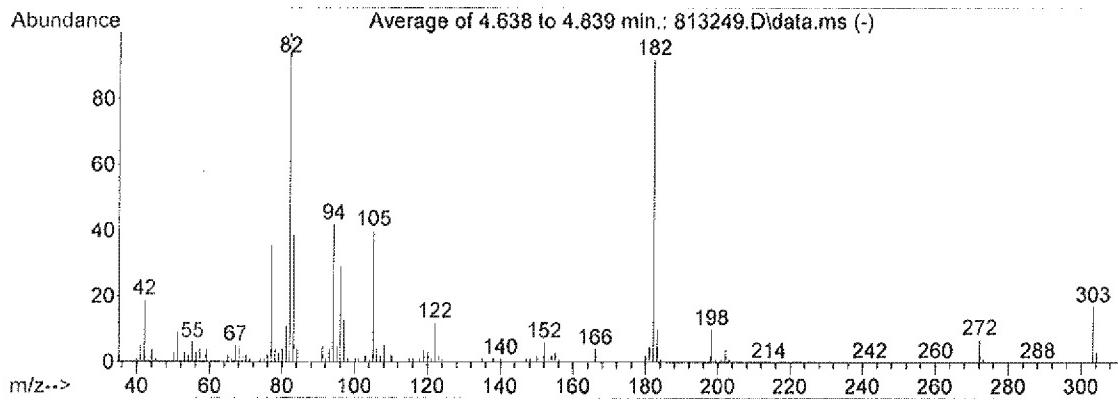


## Information from Data File:

File Name : F:\SYSTEM7\01\_11\_12\813249.D  
Operator : KAC  
Date Acquired : 11 Jan 2012 22:37  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 49  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 70  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
2	4.67	C:\Database\SLI.L COCAINE	000050-36-2	99

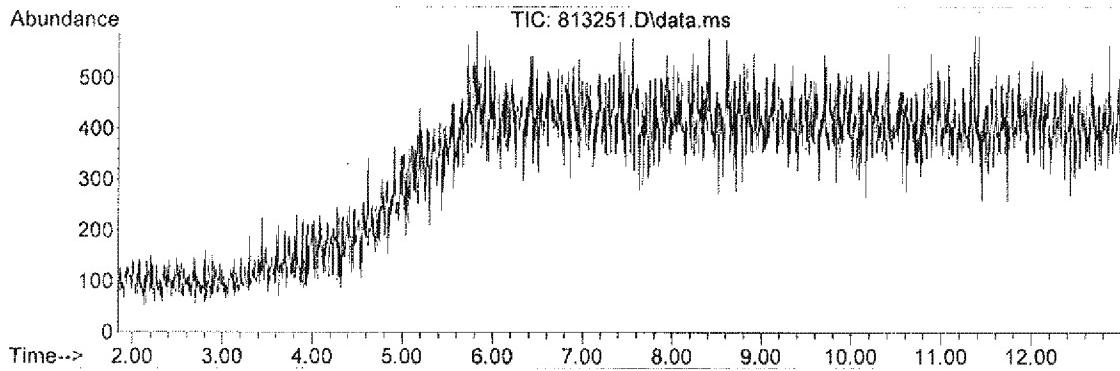


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Information from Data File:

File Name : F:\SYSTEM7\01\_11\_12\813251.D  
Operator : KAC  
Date Acquired : 11 Jan 2012 23:07  
Sample Name : BLANK  
Submitted by :  
Vial Number : 2  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

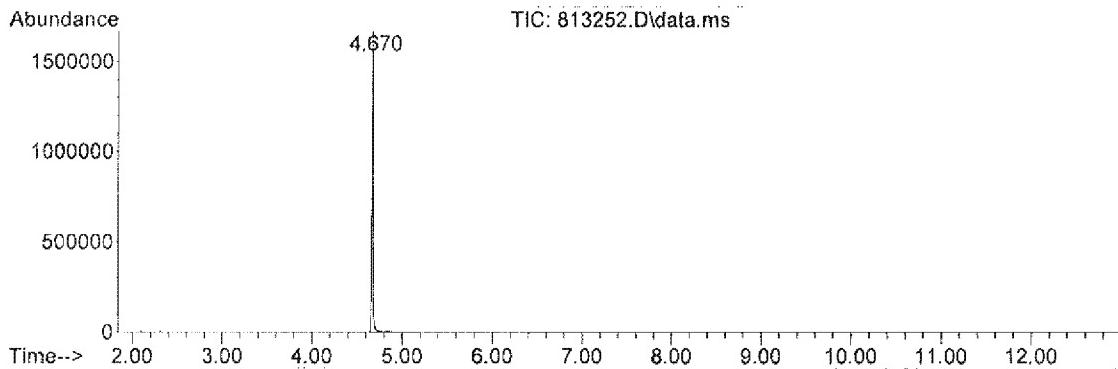
Area Percent / Library Search Report

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Information from Data File:

File Name : F:\SYSTEM7\01\_11\_12\813252.D  
Operator : KAC  
Date Acquired : 11 Jan 2012 23:23  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 52  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
4.670	1445569	100.00	100.00

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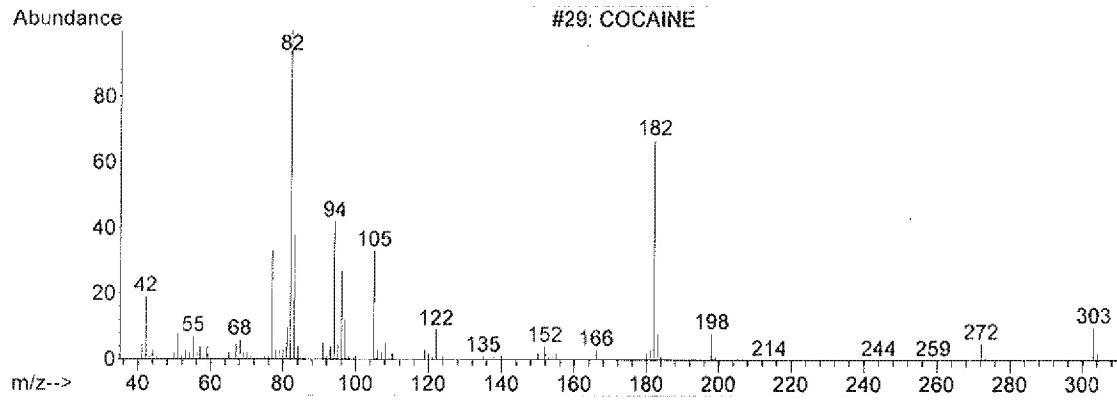
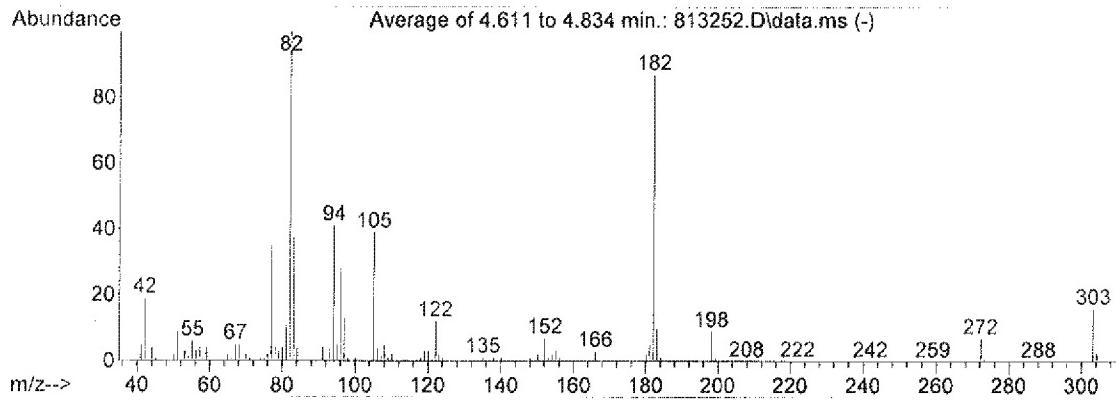
# Area Percent / Library Search Report

**Information from Data File:**

File Name : F:\SYSTEM7\01\_11\_12\813252.D  
Operator : KAC  
Date Acquired : 11 Jan 2012 23:23  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 52  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 70  
C:\Database\PMW\_TOX2.L

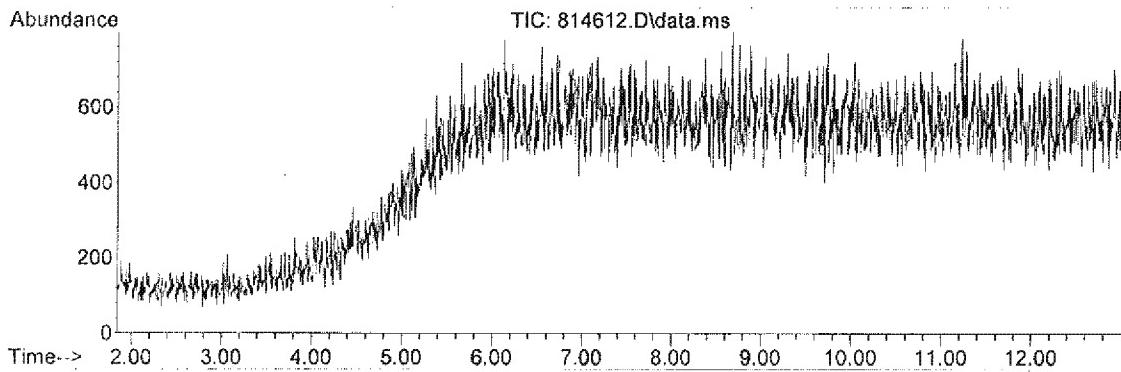
PK#	RT	Library/ID	CAS#	Qual
1	4.67	C:\Database\SLI.L COCAINE	000050-36-2	99



✓KAC  
3/7/12

## Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814612.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 13:29  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



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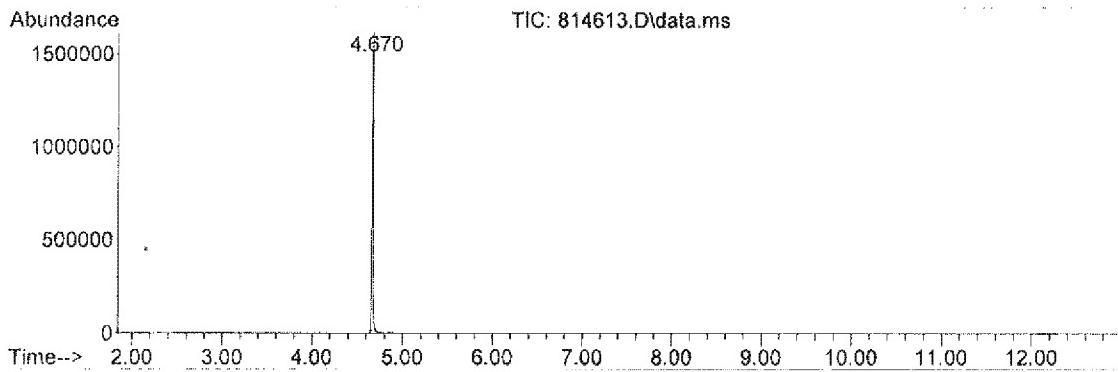
Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

## Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814613.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 13:45  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 13  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



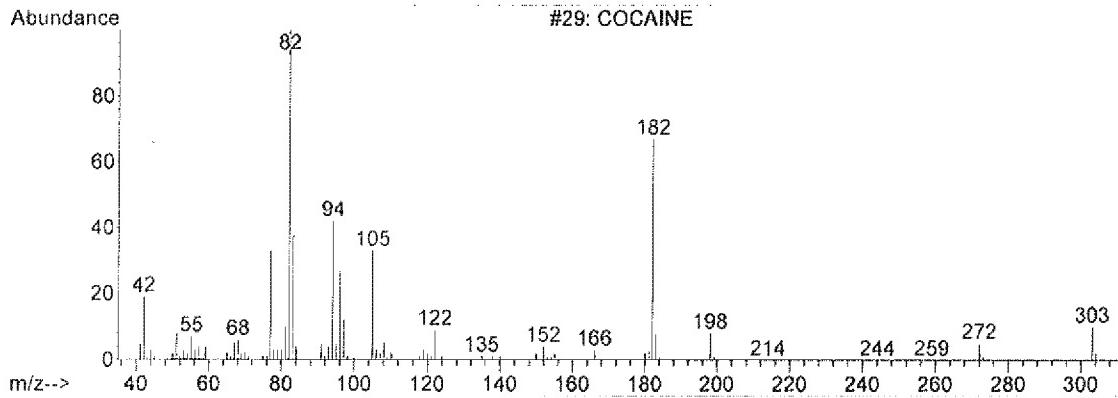
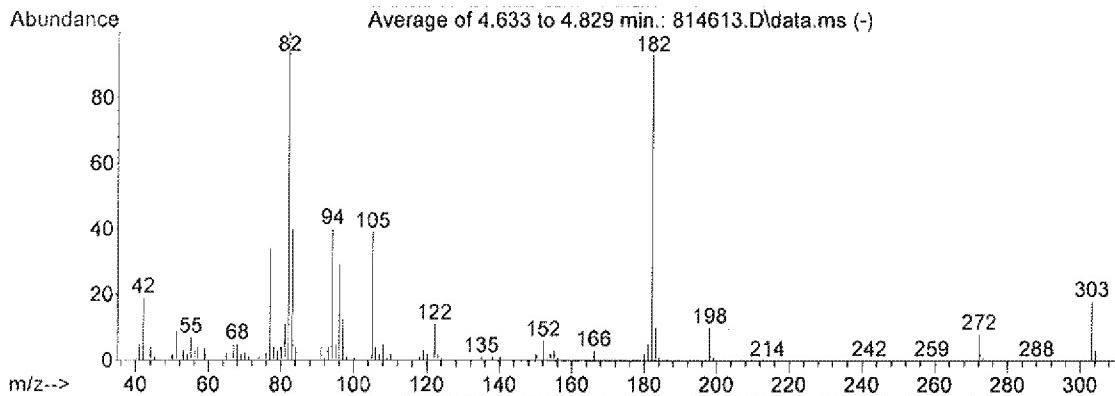
Ret. Time	Area	Area %	Ratio %
4.670	1623834	100.00	100.00

## Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814613.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 13:45  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 13  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

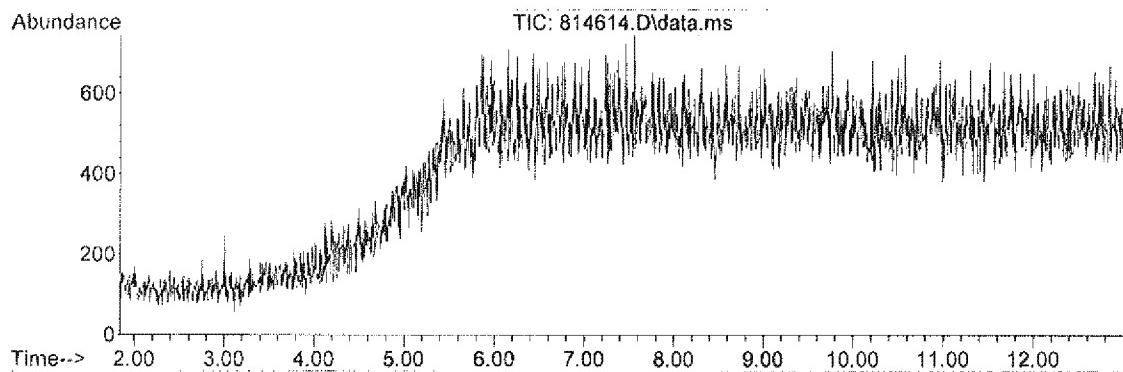
Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 70  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	4.67	C:\Database\SLI.L COCAINE	000050-36-2	99



## Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814614.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 14:01  
Sample Name : BLANK  
Submitted by : MGL  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



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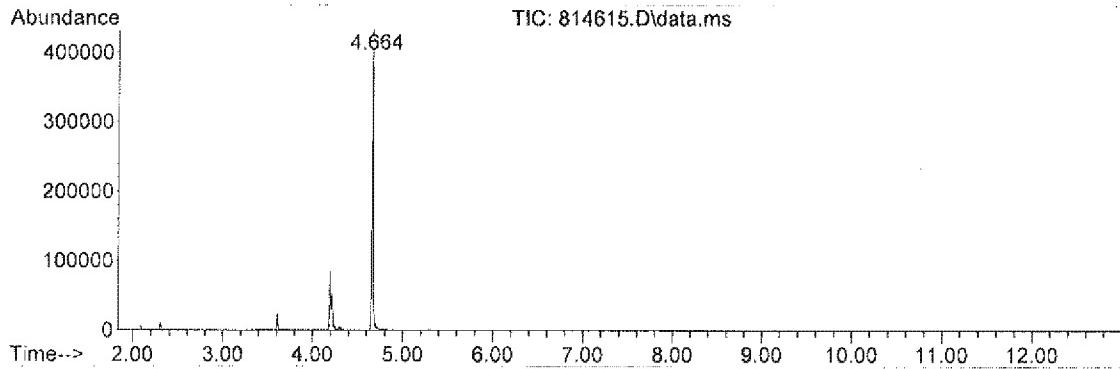
Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

## Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814615.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 14:17  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 15  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.664	399596	100.00	100.00

Area Percent / Library Search Report

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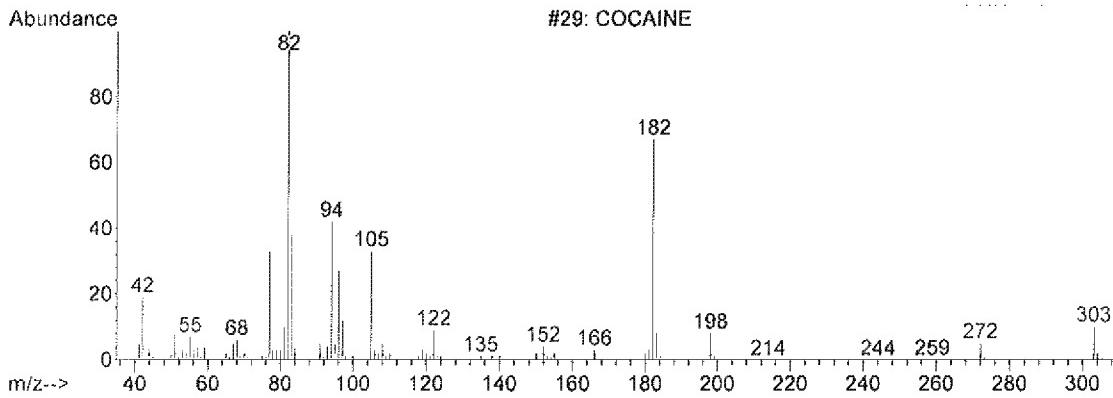
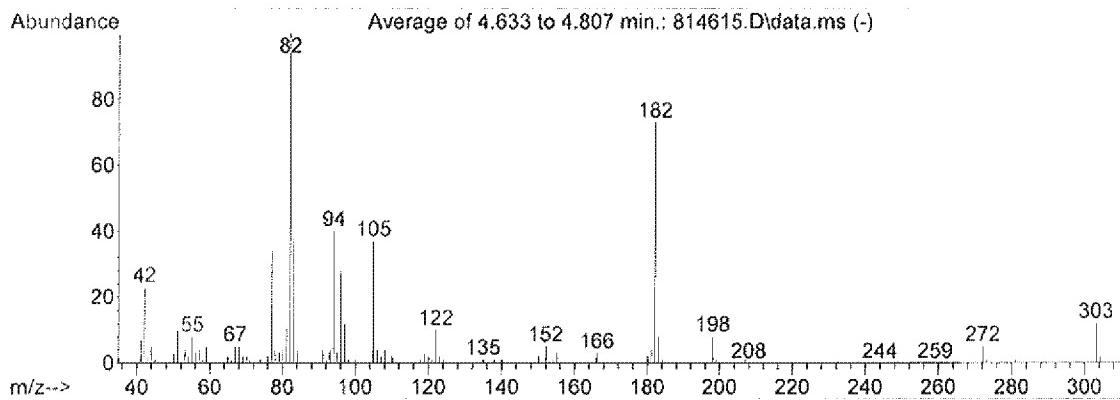
Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814615.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 14:17  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 15  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

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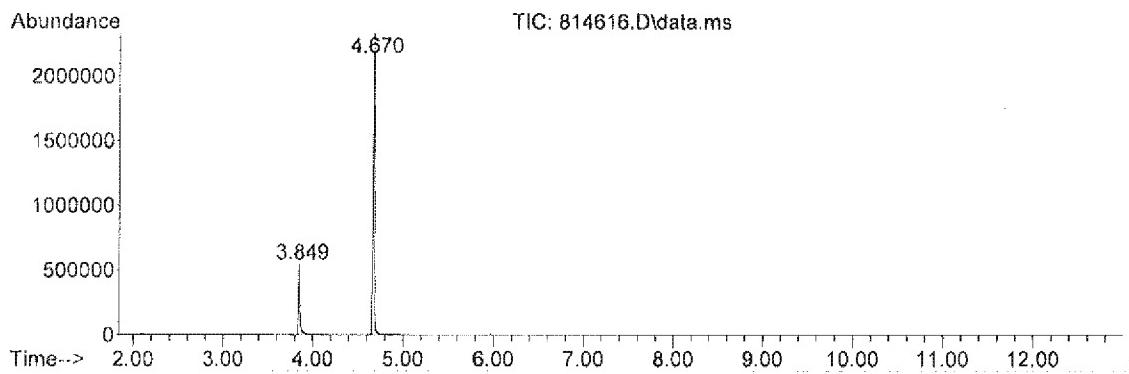
Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 70  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	4.66	C:\Database\SLI.L COCAINE	000050-36-2	99



## Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814616.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 14:32  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 16  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



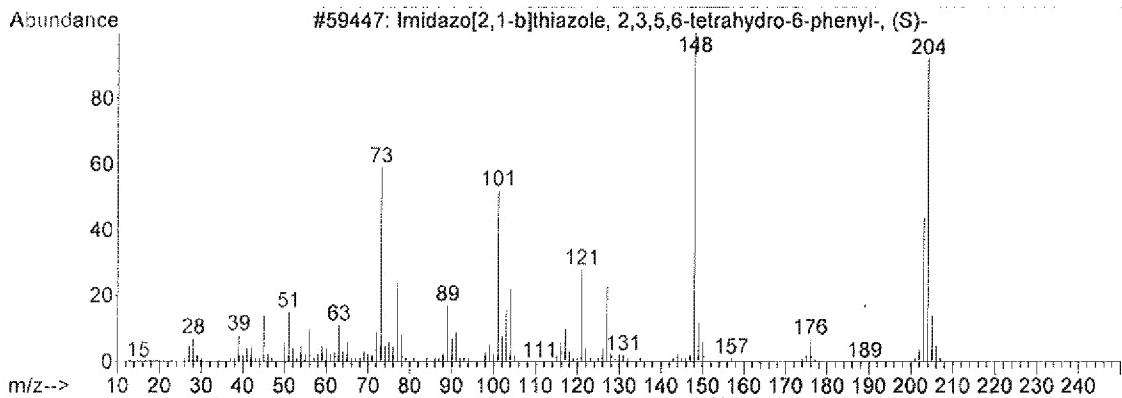
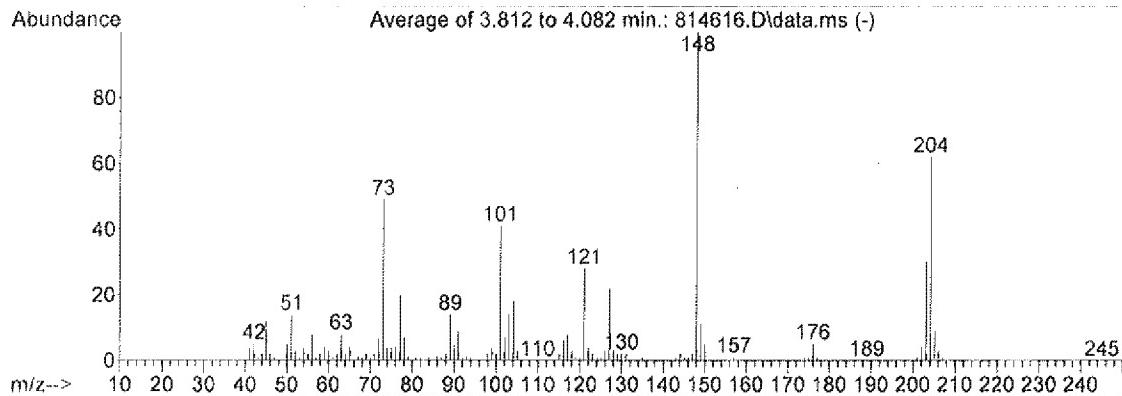
Ret. Time	Area	Area %	Ratio %
3.849	691659	20.42	25.65
4.670	2696226	79.58	100.00

## Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814616.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 14:32  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 16  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 70  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	3.85	C:\Database\NIST05a.L		
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	014769-73-4	99
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	98
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	98

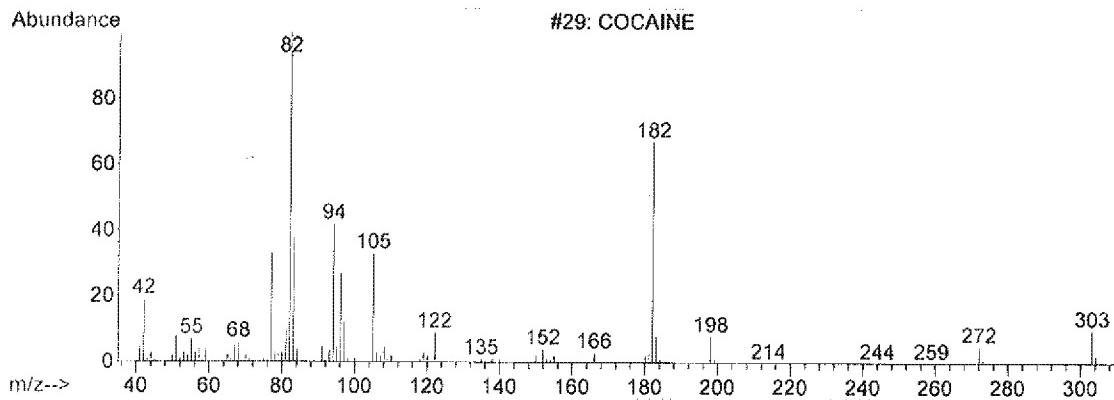
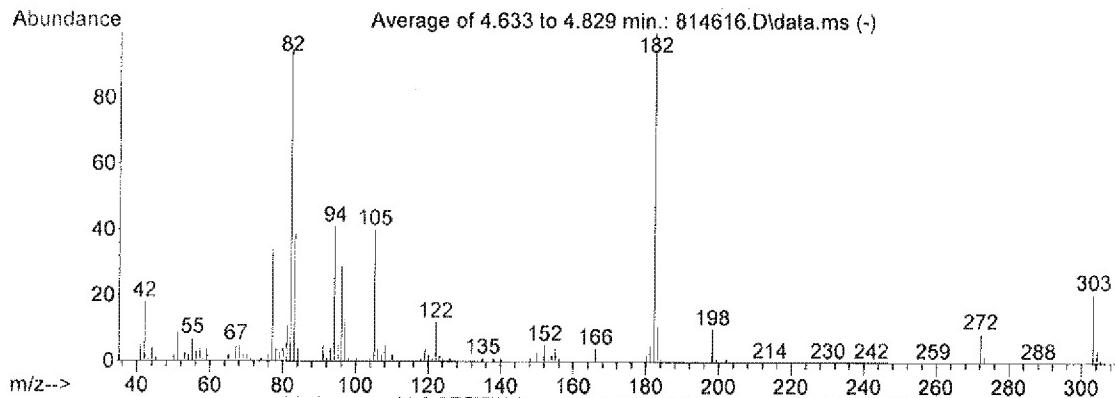


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File Name : F:\SYSTEM7\01\_24\_12\814616.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 14:32  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 16  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 70  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
2	4.67	C:\Database\SLI.L COCAINE	000050-36-2	99

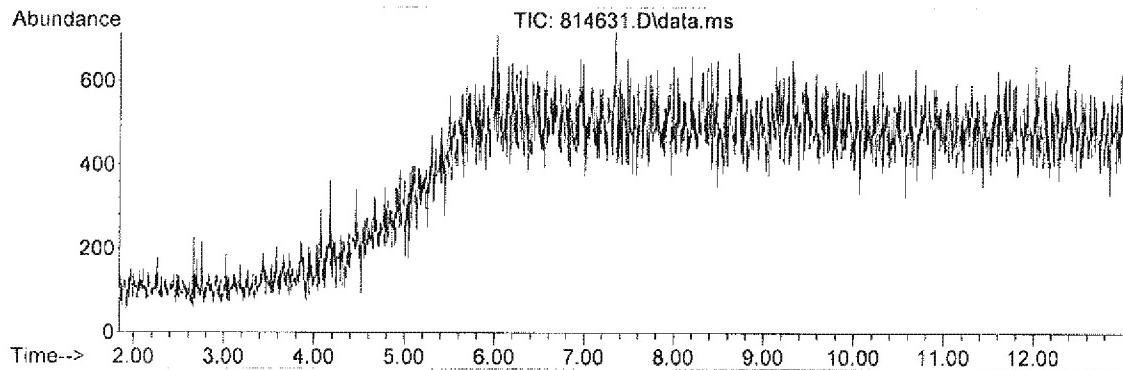


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Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814631.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 18:26  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

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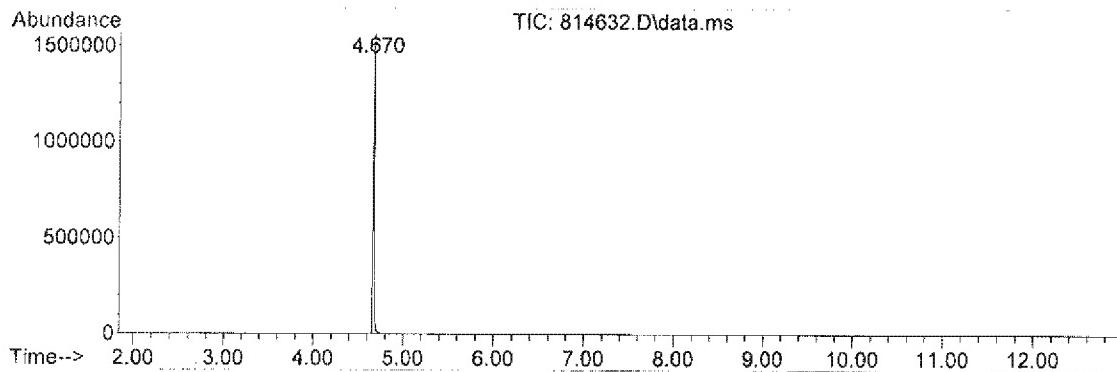
Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

## Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814632.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 18:42  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 32  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



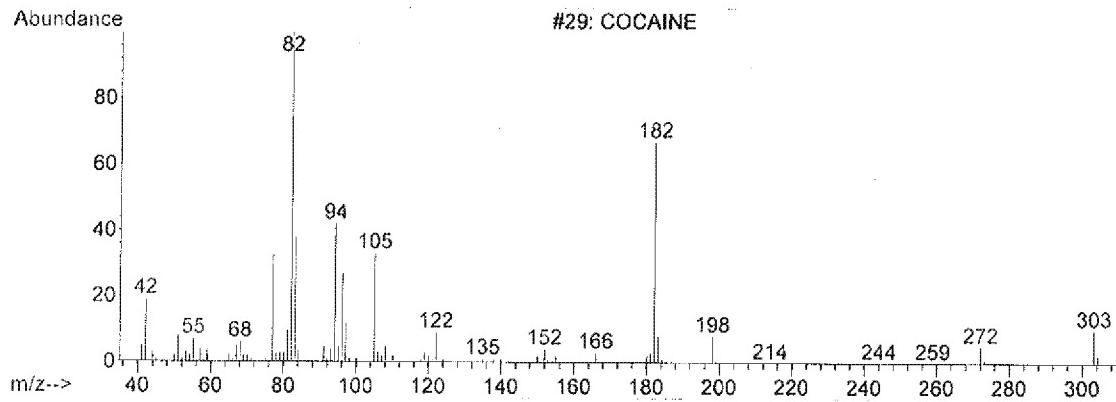
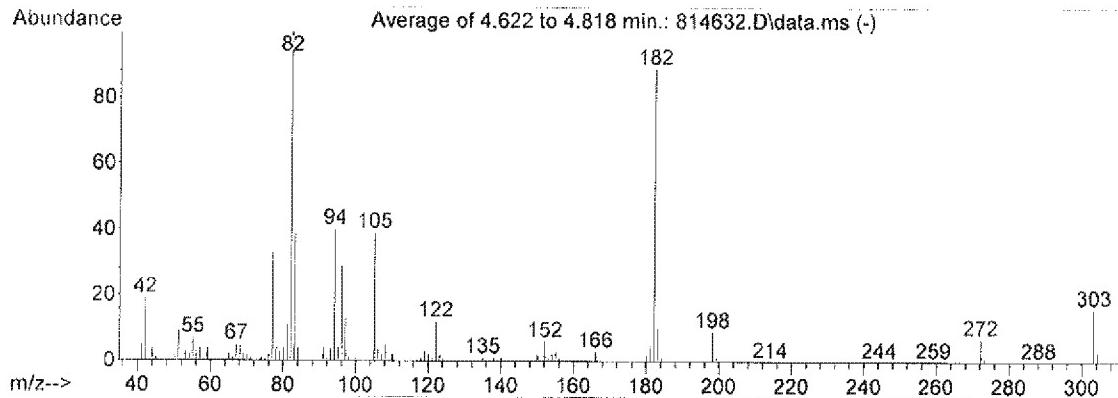
Ret. Time	Area	Area %	Ratio %
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## Information from Data File:

File Name : F:\SYSTEM7\01\_24\_12\814632.D  
Operator : KAC  
Date Acquired : 24 Jan 2012 18:42  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 32  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 70  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	4.67	C:\Database\SLI.L COCAINE	000050-36-2	99



**This is the last page of the  
transmission.  
No further data.**